REMARKS

Status of the Claims

Claim 1, 8, 9, 11 and 13-20 are pending, of which 1, 9, 11, 13 and 20 are independent claims.

Claim Rejections under 35 U.S.C. 112

Claims 14-17 are rejected under 35 USC, first paragraph, as failing to comply with the written description requirement. In claims 14 and 16, "string" was an inadvertent typographical error and has been corrected to "storing".

As for claims 15 and 16 (sic), the Examiner objects to the specification as failing to describe the uses of the telephone network. Applicant calls the Examiner's attention to the following paragraphs of the specification. In these paragraphs, a "mobile packet communication network" is synonymous with a "mobile telephone network."

> [0029] A mobile packet communication network 300 includes a wireless base station for carrying out wireless communication with mobile phones accommodated in the mobile packet communication network 300, an exchange connected to the wireless base station, a gateway exchange connected to the exchange (none of these is shown), a gateway server 400 connected to the gateway exchange, and an area management server 500 connected to the gateway server 400.
> [0031] The gateway server 400 is connected with the Internet 200, and has the function of performing interconversion between a communication protocol used inside the mobile packet communication network 300 and a communication protocol used in the Internet 200. Specifically, the gateway server 400 performs interconversion between the wireless communication protocol used in the mobile packet communication network 300 and TCP/IP (Transmission Control Protocol/Internet Protocol) which is used as the standard in the Internet 200. As a result, the communication to be held between the mobile packet communication network 300 and the Internet 20 is relayed by the gateway server 400.
> [0032] The area management server 500 is a server operated by a communication carrier who operates the mobile packet communication network 300. The area management server 500 is connected to the gateway server 400, and has the same hardware configuration as that of a typical WWW server. The area management server 500 has the function of carrying out packet communication, and

- 6 -

holds packet communication with the mobile phones accommodated in the mobile packet communication network 300 for data exchange.

[0033]   The mobile phone 600 is one owned by a not-shown user, and carries out packet communication with WWW servers connected to the Internet 200 over the mobile packet communication network 300. Consequently, the user can enjoy a variety of mobile data communication services provided by the mobile packet communication network 300.

The above paragraphs in association with Fig. 1 describe that a mobile phone 600 uses the mobile packet communication network 300 to communicate with servers on the Internet 200. Applicant therefore believes that the use of a telephone network recited in claims 15 and 17 is supported by the description of the speciation.

The Examiner also objects to claims 15 and 17 as failing to conform to current U.S. practice. Applicant has amended claims 15 and 17 to improve the syntax. As for the non-transparency recited in claims 15 and 17, Applicant calls the Examiner's attention to the following paragraph of the specification:

[0072]   As described above, since the area management server 500 is operated by the communication carrier who operates the mobile packet communication network 300 and is installed inside the mobile packet communication network 300, the confidentiality of the area reservation request message is secured. (underline added)

Claim Objections

Claim 1, 9, 11, 13 and 20 are objected to because these claims recite the limitation "capacity reference table," which the Examiner asserts lacks support in the specification. Applicant calls the Examiner's attention to the following paragraph of the specification:

[0068]   A storage unit 505 is made of storage devices such as a hard disk. It contains a data table TB2 shown by way of example in Fig. 6, in which application identifiers, the capacities of storage areas necessary for storing the corresponding applications (hereinafter, referred to as application area capacities), and the names of providers providing the applications are stored in association with one another. In addition, the storage unit 505 contains a control program for controlling the area management server 500. (underlines added)

Applicant believes that the "capacity reference table" is supported by the description of the specification.

Claims Rejections under 35 U.S.C. 103

Claims 1, 9, 11, 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ober (US Patent No. 6,397,331) in view of Huges (US Patent Publication No. 2005/0198239. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ober in view of Huges and further in view of Albanese et al (US Patent Publication No. 2006/0112188).

The Examiner cites Ober as the main reference for the rejections. However, Applicant does not believe that Ober is pertinent to the claimed invention. An operating system usually segregates virtual memory into a kernel space and a user space. The kernel space is strictly reserved for running kernel, kernel extensions, such as a cryptographic algorithm, and some device drivers. The user space is the memory area where all user applications run. The kernel space contains information so important to the computer that direct access to the space by applications is prohibited.

Ober is directed to expanding a secured kernel memory area into an unprotected user memory area. (col. 2, lines 28-29). In Ober, expansion of the kernel space is conducted under the control of the manufacture who manufactured the memory.

In Ober, when an additional cryptographic algorithm (an extended code) needs to be downloaded on a computer, but the current kernel area has no space to store the additional cryptographic algorithm, an OEM application running on the computer downloads the additional cryptographic algorithm anyway. The OEM application is an application provided by an OEM who manufactured the computer which contains the IC memory. The OEM application then retrieves the serial number of the IC memory in which the additional cryptographic algorithm is to be stored (Step 2) and sends the serial number and the additional cryptographic algorithm to the manufacturer of the IC memory (Step 4). If the IC manufacturer approves the additional cryptographic algorithm (Step 6), a token is generated and sent back to the computer (Step 8). The token includes the serial number and a digital signature of the additional cryptographic algorithm. The digital signature is created by the IC manufacturer. (col. 3, lines 1-14).

Upon receiving the token from the IC manufacturer, the OEM application transfers the additional cryptographic algorithm to the kernel (the secure kernel) (Step 10). The kernel extracts the serial number from the token (Step 14). If the serial number in the token matches the serial number of the IC memory (Steps 16 and 18), the kernel then verifies the signature from the IC manufacturer (Step 24). If the signature is successfully verified, the kernel program locks in an area in the user memory area for the additional cryptographic algorithm (Step 28) by converting the area from the user memory area to the kernel memory area. The kernel program then places the additional cryptographic algorithm in the converted area (Step 30) (col. 3, lines 24-62).

Ober fails to disclose or teach the invention recited in claim 1. First, Ober is silent about the limitation of "providing at an area management apparatus a capacity reference table in which identifications of applications and capacities necessary for storing the applications are storable in relation to identifications of application providers." There is nothing in Ober that discloses or suggests use of a table of any sort by the IC manufacture which is similar to the capacity reference table recited in the claim.

Ober is also silent about the limitation of "using the capacity reference table, determining at the area management apparatus a capacity necessary for storing the application identified in the request." In the present invention, the capacity necessary for storing the identified application is determined, using the capacity reference table. In Ober, the IC manufacture is indifferent about the size of the additional cryptographic algorithm. As explained above, in Ober, upon receiving the additional cryptographic algorithm, all the IC manufacturer does with the additional cryptographic algorithm is to decide whether to approve the additional cryptographic algorithm.

Ober also fails to disclose the limitation of "transmitting at the area management apparatus to the communication terminal an execution instruction to reserve a space having the determined capacity in a storage area of the communication terminal." The IC manufacturer of Ober does not send an instruction including the space capacity determined to be reserved for the application. In Ober, the IC manufacture simply sends the token including the serial number of the IC memory and the signature.

Claims 11 and 13 recite claim limitations, including the capacity reference table, similar to those of claim 1. Therefore, Ober fails to disclose or teach the inventions recited in claims 11 and 13.

Further, Ober fails to disclose or teach the invention recited in claim 9. More specifically, Ober is silent about the limitation of "a capacity information requester executed by the control program to transmit to an area management apparatus a request identifying an application to be downloaded. In Ober, as explained above, the OEM application sends the serial number of an IC memory and an additional cryptographic algorithm to the IC manufacture for approval.
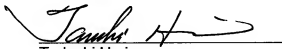
Ober is also silent about the limitation of "a capacity information receiver executed by the control program to receive from the area management apparatus information indicative of a capacity necessary for storing the application identified in the request. In Ober, as explained above, the OEM application only receives a token which contains the serial number and the signature.

Claim 20 recites limitations similar to those of claim 9. Therefore, Applicant believes that Ober is also silent about the invention recited in claim 20.

For the reasons set forth above, Ober fails to disclose the limitations of claim 1, 9, 11 and 13. So do Huges and Albanese. Therefore, claims 1, 9, 11 and 13 should be allowable over these cited references. Since claims 1, 9, 11 and 13 should be allowable, their dependent claims 8 and 14-19 should also be allowable.

Therefore, Applicants respectfully submit that the claimed invention is neither anticipated by nor would have been obvious in view of Ober, Huges and Albanese, either individually or in combination. Accordingly, withdrawal of this ground of rejection is respectfully requested.

Respectfully submitted,

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